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June 30, 2011

The Honorable Carl Levin
Chairman
The Honorable John McCain
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Howard P. McKeon
Chairman
The Honorable Adam Smith
Ranking Member
Committee on Armed Services
House of Representatives

Subject: *Defense Logistics: DOD Input Needed on Implementing Depot Maintenance Study Recommendations*

This report responds to section 322 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009.¹ Section 322 required the Secretary of Defense to contract for a study on the capability and efficiency of the depots of the Department of Defense (DOD) to provide the logistics capabilities and capacity necessary for national defense. DOD placed a task order under an existing contract with LMI, Inc. (LMI) to complete the study, which was to address a range of issues specified in section 322. As required by section 322, the task order specified that the contractor submit an interim report on its study to the Senate and House Committees on Armed Services not later than 1 year after the commencement of the study and a final report not later than 22 months after the date on which the Secretary of Defense enters into the contract. LMI submitted its interim report, containing background information and summary data on the DOD depot maintenance enterprise, to the Committees on Armed Services in December 2009. The final report, containing conclusions and recommendations, was provided to the Committees on Armed Services in February 2011.

Section 322 also directed GAO to provide an assessment of the feasibility of the recommendations and whether the findings were supported by the data and information examined and to submit a report to the Committees on Armed Services of the Senate and House of Representatives within 90 days of the date on which the contractor submitted its final report. In response, our objectives were to determine

¹Pub. L. No. 110-417 (2008).

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the extent to which (1) LMI's reports addressed the five issues and 33 subissues specified in the law, (2) the findings in LMI's final report were supported by the data and information examined, and (3) the recommendations in LMI's final report were feasible.

Scope and Methodology

To conduct this work, we reviewed LMI's interim and final reports and assessed whether the LMI study addressed the issues and subissues specified in section 322. We reviewed documentation that the LMI study team collected and interviewed members of the study team to determine their processes for completing the study. From prior GAO work, we identified generally accepted research standards that define a sound and complete study, determined which of these standards were relevant to LMI's study, and compared characteristics of LMI's study to those standards. We also interviewed officials from the Office of the Secretary of Defense, the military departments, a nongeneralizable sample of 8 of the 17 service depots and their respective commands, and a defense industry group to obtain their perspectives on the recommendations in LMI's final report. Further details on our scope and methodology are provided in enclosure I, starting at page 10.

We conducted this performance audit from January 2011 to June 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

On May 16, 2011, we briefed the Committees on Armed Services of the Senate and House of Representatives on our findings. This is our final report and incorporates comments from DOD and LMI. Our evaluation of the LMI study is discussed in detail in the attached briefing slides (see enc. I).

Summary and Recommendation for Executive Action

LMI's reports addressed 26 of the 33 subissues specified in section 322, and partially addressed the other 7 subissues. For example, on the issue of the adequacy of reports submitted to Congress on each military department's maintenance workload, the reports addressed all 4 subissues, including how accurately depot budget lines reflect depot-level workloads, the accuracy and usefulness of current depot maintenance reporting requirements, and whether current budgetary guidelines provide sufficient flexibility during the year of execution to make best-value decisions. For each of the other issues, the LMI reports addressed some subissues and partially addressed one or more subissues. For example, the LMI report addressed 5 of the 8 subissues on current and future maintenance environments, but partially addressed the other 3: performance-based logistics, supply chain management, and private-sector depot-level capability and capacity.

LMI's study was generally consistent with research standards that define a sound and complete study with regard to design, execution, and presentation. For example, the study's scope was consistent with the available guidance, the study team verified and validated the study data, and assumptions were identified in internal documents and the interim and final reports. However, we also found some areas of concern. These concerns included limited documentation on the maintenance workload and servicemember deployment statistical models used as the basis for some findings, the absence of information in the reports on the limitations present in some of the data used in the study, and unclear report organization. For example, we and officials from the military departments noted that subrecommendations were difficult to identify.

Implementation of all five recommendations presented in LMI's report is feasible according to subject matter experts in the depot maintenance community whom we interviewed. The recommendations are (1) revise the statutory framework for depot maintenance, (2) link acquisition and sustainment policies, (3) strengthen the core determination process, (4) improve depot maintenance reporting, and (5) establish an independent commission or series of facilitated forums to review the major alternatives for improving organic depot maintenance management and execution. Although feasible, the interviewees told us that they believe the fifth recommendation is unnecessary because issues highlighted in the study could be addressed by existing DOD bodies. Section 322 also specified that the final report shall include comments provided by the Secretary of Defense and secretaries of the military departments on the findings and recommendations of the study, but DOD's official response did not specifically address any findings or recommendations. DOD officials indicated that the department did not provide more specific comments because DOD did not provide the study—LMI did. Our review of LMI's internal documents determined that DOD and military department officials did provide input and feedback on aspects of the study throughout its design, execution, and report preparation. Without DOD's views about LMI's findings and recommendations, Congress does not have all of the information it needs to help establish a way forward toward more effective and efficient depot-level maintenance.

Therefore, we recommend that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology, and Logistics to report to Congress with DOD's views on LMI's recommendations, any statutory and policy changes needed to implement the recommendations, actions and timelines for accomplishing ongoing and planned actions to implement the recommendations, and estimated costs and benefits of implementing the recommendations.

Agency Comments, Third-Party Views, and Our Evaluation

In commenting on a draft of this report, DOD partially concurred with our recommendation. DOD stated that it is reviewing the findings and recommendations in the LMI study and believes that it is premature to provide the results of this effort until its analysis is complete. DOD added that a report to Congress on the Department's efforts is neither necessary nor required. As noted earlier, section 322 specified that LMI's final report was to include comments from DOD on the study's

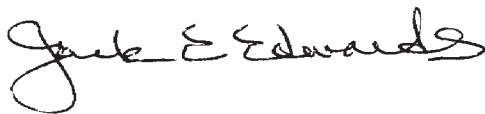
findings and recommendations, but DOD did not specifically address the findings and recommendations in its official response. Therefore, we continue to believe that such comments would provide important context to help Congress determine the appropriate course of action when considering LMI's recommendations.

In commenting on a draft of this report, LMI concurred with our acknowledgment that the study covered a broad set of depot maintenance issues well, using a sound research approach that produced reasonable recommendations. LMI also commented on our finding that 7 of the 33 subissues specified in section 322 were partially addressed by its study. LMI noted that these 7 subissues were not covered in the study's reports to the same volume as the others, but stated that this was because the LMI study team determined that they were not critical elements of the study's findings and recommendations. LMI stated that these subissues were fully explored as part of the study. However, our criterion for evaluating whether LMI addressed all 33 subissues was the extent to which each of the subissues was covered in LMI's interim and final reports. Therefore, we believe our finding that LMI's reports did not fully address these 7 subissues as outlined in section 322 remains valid.

DOD's and LMI's written comments are reprinted in enclosures II and III, respectively. Both DOD and LMI also provided technical comments that we incorporated into this report where applicable.

We are sending copies of this report to the appropriate congressional committees. We are also sending copies to the Secretary of Defense; the Under Secretary of Defense for Acquisition, Technology, and Logistics; the Secretaries of the Army, the Navy, and the Air Force; the Commandant of the Marine Corps; and the Chief Executive Officer of LMI, Inc. This report also is available at no charge on the GAO Web site at <http://www.gao.gov>.

Should you or your staff have any questions concerning this report, please contact me at (202) 512-8246 or edwardsj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are provided in enclosure IV.



Jack E. Edwards
Director, Defense Capabilities and Management

Enclosures – 4

Briefing to Congressional Committees



Defense Logistics: DOD Input Needed on Implementing Depot Maintenance Study Recommendations

**Briefing for Congressional Committees
June, 2011**

Contents

- Introduction
- Mandate and Objectives
- Scope and Methodology
- Summary of Findings
- Objective 1: Extent Study Addressed Specified Issues
- Objective 2: Study Design, Execution, and Presentation
- Objective 3: Feasibility of Recommendations
- Conclusions
- Recommendation for Executive Action
- Agency Comments, Third-Party Views, and Our Evaluation
- GAO Contact and Staff Acknowledgments
- Related GAO Products

Figure 1: Mechanics at Anniston Army Depot Line Up a Turret with Its Hull



Source: U.S. Army



Introduction

DOD's depot workload has increased to support overseas operations

- The Department of Defense's (DOD) depot maintenance enterprise employs approximately 77,000 personnel with an annual operating budget of over \$30 billion. Some of the most in-depth and complex maintenance work is carried out at 17 DOD depots that have an estimated facility value of over \$48 billion. Additional depot-level work is carried out by private-sector contractors that may work in public-private partnerships with depots or in the contractors' own facilities.
- Obligations for depot-level maintenance (organic¹ and commercial) have increased in recent years to support overseas operations in Iraq and Afghanistan, growing from \$22.5 billion in fiscal year 2001 to \$32.3 billion in fiscal year 2009.² A large portion of this increase has been supported by Overseas Contingency Operations funding.
- The House Committee on Armed Services noted that when wartime operations in Iraq and Afghanistan cease and supplemental funding for depot maintenance is reduced, DOD depots may face challenges similar to those in the post—Cold War environment where public- and private-sector facilities competed for limited available workload.³

¹DOD defines organic depot activities as government-owned and government-operated activities that perform depot-level maintenance that are assigned to or part of a military service.

²Obligations funding data are in constant fiscal year 2009 dollars.

³H.R. Rep. No. 110-652, at 333 (2008).



Introduction

Fiscal year 2009 National Defense Authorization Act directed DOD to contract for a study on depot capability and efficiency

- Section 322 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009:⁴
 - Required the Secretary of Defense to contract for a study on the capability and efficiency of its depots to provide the logistics capabilities and capacity necessary for national defense. DOD placed a task order for the study using an existing contract with LMI, Inc (LMI).
 - Included five issues, with 33 associated subissues, to be addressed in the overall study and the final report.
 - Stated that the study's final report should include recommendations addressing issues, including
 - what would be required to maintain, in a post-reset⁵ environment, an efficient and enduring DOD depot capability, including appropriate changes to applicable law, and
 - the methodology of determining core logistics requirements, including an assessment of risk.
- As outlined in the legislation, LMI prepared both an interim and final report.
 - The interim report contains background information and summary data on the DOD depot maintenance enterprise. It is not an earlier draft of the final report.
 - LMI submitted its final report, *Future Capability of DOD Maintenance Depots*, to the Committees on Armed Services of the Senate and House of Representatives on February 15, 2011. The final report contains conclusions and recommendations.

⁴Pub. L. No. 110-417, § 322.

⁵Reset refers to actions taken to repair, enhance, or replace military equipment used in support of operations under way, and associated sustainment.



Mandate and Objectives

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- Section 322 of the 2009 National Defense Authorization Act:
 - Directed us to submit a report to the Committees on Armed Services of the Senate and House of Representatives not later than 90 days after the date on which the final report was submitted.
 - Mandated that our report contain an assessment of the feasibility of the recommendations in the study, and whether the findings were supported by the data and information examined.
 - We therefore determined the extent to which
 1. LMI's reports addressed the five issues and 33 subissues specified in the law,
 2. the findings in LMI's final report were supported by the data and information examined, and
 3. the recommendations in LMI's final report were feasible.



Scope and Methodology

- For all three objectives, we reviewed the legislation and reports on depots and maintenance issued by us and others; and discussed our preliminary observations with stakeholders that included DOD, the military services, and others such as an association representing private-sector organizations that perform depot-level maintenance.
- To determine the extent to which the LMI study addressed the legislation-specified issues and subissues, we:
 - Reviewed LMI's interim and final reports and assessed the extent to which the reports address the five issues and their 33 subissues.
 - To increase the validity of our assessments, had the initial assessment of each issue by one analyst independently reviewed by another analyst.
 - Had the entire engagement team collectively review and approve this decision.
- To determine the extent to which the report's findings were supported by the data and information LMI examined, we:
 - Used relevant generally accepted research standards based on prior GAO work⁶ and evaluated the study against these criteria.

⁶GAO identified frequently occurring, generally accepted research standards that are relevant for studies and define a sound and complete study as part of a 2006 review. The standards drew from several sources, including prior GAO work and external organizations such as the RAND Corporation. See GAO, *Defense Transportation: Study Limitations Raise Questions about the Adequacy and Completeness of the Mobility Capabilities Study and Report*, GAO-06-938 (Washington, D.C.: Sept. 20, 2006); and *Defense Management: DOD Needs to Monitor and Assess Corrective Actions Resulting from Its Corrosion Study of the F-35 Joint Strike Fighter*, GAO-11-171R (Washington, D.C.: Dec. 16, 2010).



Scope and Methodology (cont.)

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- Had two team members independently review and rate the evidence as to what, if any, limitations were present for the methods used to conduct and report the study.
 - Discussed each assessment and collectively reached agreement on the extent to which LMI's study met the standards.
 - To determine the extent to which the recommendations in LMI's final report were feasible, we took the following steps:
 - Reviewed the recommendations and subrecommendations outlined in the LMI final report.
 - Interviewed subject matter experts who were officials from the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (Maintenance Policy and Programs); Army, Marine Corps, Navy, and Air Force headquarters' offices; a nongeneralizable sample of 8 of the 17 service depots and their respective commands; and a defense industry group in order to obtain their informed opinions of the feasibility of the recommendations.



Scope and Methodology (cont.)

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- Selected the eight depot locations based on the following criteria:
 - At least one depot for each service.
 - Maintenance support for a variety of equipment types.
 - Exposure to issues discussed in the LMI reports.
 - High workload.
 - Previous consolidation or workforce changes.
 - Analyzed the officials' responses (e.g., key examples of progress in implementing parts of the recommendations) collected from our interviews to determine the feasibility of each recommendation.
 - We conducted this performance audit from January 2011 to June 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.



Summary of Findings

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- **Objective 1:** LMI's reports addressed 26 of the 33 subissues specified in section 322, and partially addressed the other 7 subissues. For example, within the issue of the adequacy of reports submitted to Congress on each military department's maintenance workload, the reports addressed all 4 subissues, including how accurately depot budget lines reflect depot-level workloads, the accuracy of certain depot maintenance calculations, the usefulness of current depot maintenance reporting requirements, and whether current budgetary guidelines provide sufficient flexibility during the year of execution to make best-value decisions. For each of the other issues, the LMI reports addressed some subissues and partially addressed one or more subissues. For example, the LMI report addressed 5 of the 8 subissues on current and future maintenance environments, but partially addressed the other 3: performance-based logistics, supply chain management, and private-sector depot-level capability and capacity.
 - **Objective 2:** LMI's study was generally consistent with research standards that define a sound and complete study with regard to design, execution, and presentation. For example, the study's scope was consistent with the available guidance, the study team verified and validated the study data, and assumptions were identified in internal documents and the interim and final reports. However, we also found some areas of concern. These concerns included limited documentation on the maintenance workload and servicemember deployment statistical models used as the basis for some findings, the absence of information in the reports on the limitations present in some of the data used in the study, and unclear report organization. For example, we and officials from the military departments noted that subrecommendations were difficult to identify.
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Summary of Findings (cont.)

- **Objective 3:** Implementation of all five recommendations presented in LMI's report is feasible according to subject matter experts in the depot maintenance community whom we interviewed. The recommendations are (1) revise the statutory framework for depot maintenance, (2) link acquisition and sustainment policies, (3) strengthen the core determination process, (4) improve depot maintenance reporting, and (5) establish an independent commission or series of facilitated forums to review the major alternatives for improving organic depot maintenance management and execution. Although feasible, the interviewees told us that they believe the fifth recommendation is unnecessary because issues highlighted in the study could be addressed by existing DOD bodies. Section 322 also specified that the final report shall include comments provided by the Secretary of Defense and secretaries of the military departments on the findings and recommendations of the study, but DOD's official response did not specifically address any findings or recommendations. DOD officials indicated that the department did not provide more specific comments because DOD did not provide the study—LMI did. Our review of LMI's internal documents determined that DOD and military department officials did provide input and feedback on aspects of the study throughout its design, execution, and report presentation. Without DOD's views about LMI's findings and recommendations, Congress does not have all of the information it needs to help establish a way forward toward more effective and efficient depot-level maintenance.
- **Recommendation for Executive Action:** We are making a recommendation that DOD report to Congress with its views on LMI's recommendations, any statutory and policy changes needed to implement the recommendations, actions and timelines for accomplishing ongoing and planned actions to implement the recommendations, and estimated costs and benefits of implementing the recommendations.



Obj. 1: Extent Study Addressed Specified Issues

Overview – Study either addressed or partially addressed all 33 specified subissues

- The LMI study addressed 26 of the 33 subissues specified in section 322, and partially addressed the remaining 7.⁷ The five major issues were as follows:
 - Specific contents, including quantitative analyses; direct input from DOD; identification of each type of maintenance activity; and examination of relevant laws, guidance, and GAO reports.
 - Four of the six subissues for this issue were addressed.
 - Life-cycle sustainment strategies and implementation plans.
 - Seven of the eight subissues for this issue were addressed.
 - Current and future maintenance environments.
 - Five of the eight subissues for this issue were addressed.
 - The visibility of each military department's maintenance workload in reports submitted to Congress.
 - All four subissues for this issue were addressed.
 - Specified contents for the final report, including recommendations to ensure an efficient and enduring DOD depot capability.
 - Six of the seven subissues for this issue were addressed.

⁷We considered subissues to be addressed if the LMI reports discussed all topics specified within each subissue or included recommendations that were specified in the legislation, and partially addressed if the reports discussed some but not all of the specified topics.



Obj. 1: Extent Study Addressed Specified Issues

Four of six content subissues were addressed, and two were partially addressed

- **Quantitative analysis of post-reset DOD depot capability—Addressed:** Study presented the results of a quantitative analysis to make projections of the future need for depot maintenance and the utilization of workload capacity.
- **Input from Secretary of Defense and military departments—Addressed:** Officials from the Office of the Secretary of Defense and the services—as well as our review of LMI workpapers—confirmed that they provided input to the LMI study team. However, the DOD letter included in LMI's final report did not identify any concerns or whether DOD concurred with LMI's recommendations.
- **Input from regular and reserve components of the armed forces—Partially addressed:** The LMI study team met with officials from regular components of the military, including select depots, but input from the reserve components was limited to one Army National Guard unit.
- **Identify and address each type of activity carried out at various maintenance facilities—Partially addressed:** The study identified and addressed maintenance activities at facilities such as the major organic depots,⁸ but did not identify or address activities at other facilities specified in the law (such as regional sustainment-level maintenance sites).
- **Examine relevant DOD and military department guidance, including budget guidance—Addressed:** The study presented applicable DOD guidance in a table and discussed department guidance specific to budgeting.
- **Examine applicable laws, as well as the relevant body of GAO work—Addressed:** The study discussed laws (e.g., 10 U.S.C. § 2464: core logistics capabilities), recommended changes to statutes, and included a comprehensive appendix with summaries of relevant GAO reports.

⁸Major organic depot maintenance activities are defined as those with more than 400 DOD civilian and U.S. uniformed military employees engaged in depot-level maintenance operations.



Obj. 1: Extent Study Addressed Specified Issues

Seven of eight life-cycle sustainment strategy subissues were addressed, and one was partially addressed

- **Role of each type of maintenance activity—Partially addressed:** Discussed organic depot, forward-deployed, and commercial activities, but did not link the role of each type of maintenance activity to DOD strategies and implementation plans.
- **Business operations—Addressed:** Discussed links between depots' business strategies and DOD's strategic planning and management of business operations.
- **Workload projection—Addressed:** Discussed possible future workload changes and their causes, and evaluated the services' workload projections.
- **Outcome-based performance management objectives—Addressed:** Discussed systems that use outcome-based metrics, and recommended improvements.
- **Adequacy of information technology systems—Addressed:** Discussed how the depots are relying on planned modernization of technology to apply best practices.
- **Workforce, including skills required and development—Addressed:** Discussed workforces for both the organic and commercial sectors of depot-level maintenance.
- **Budget and fiscal planning policies—Addressed:** Discussed budget visibility and planning processes, and the ineffectiveness of existing budget exhibits to provide visibility.
- **Capital investment strategies—Addressed:** Discussed how revised use of core⁹ calculations could inform capital investment strategies.

⁹Core refers to a depot maintenance capability that is government-owned and government-operated (including government personnel and government-owned and government-operated equipment and facilities) to ensure a ready and controlled source of technical competence and resources necessary for effective and timely response to a mobilization, national defense contingencies, or other emergency requirements (10 U.S.C. § 2464).



Obj. 1: Extent Study Addressed Specified Issues

Five of eight subissues discussing maintenance environments were addressed, and three were partially addressed

- **Performance-based logistics—Partially addressed:** Discussed this maintenance strategy in the context of current private-sector support of depot-level maintenance, but did not discuss its impact on the future depot maintenance environment.
- **Supply chain management—Partially addressed:** Discussed problems with DOD's approach to integrating supply chains with maintenance depots, but did not discuss how supply chain management should fit into the future depot maintenance environment.
- **Condition-based maintenance¹⁰—Addressed:** Discussed implementation of condition-based maintenance, noting that implementation is ongoing and uneven across the services.
- **Reliability-based maintenance¹⁰—Addressed:** Discussed DOD policies for this subissue, noted the services' inconsistent implementation, and provided examples.
- **Consolidation and centralization—Addressed:** Discussed the different levels of maintenance, forward-based depot capacity, and recommended depot consolidation.
- **Public-private partnerships—Addressed:** Discussed the services' plans to increase facility use by partnering with industry, and noted that implementation is inconsistent among the services.
- **Private-sector depot-level capability and capacity—Partially addressed:** Discussed future capability of commercial depot-level maintenance (e.g., workforce and globalization issues), but did not cover private-sector capacity because data associated with this topic were proprietary.
- **Impact of proprietary technical documentation—Addressed:** Discussed the present context for obtaining technical data rights, and highlighted areas for improvement.

¹⁰Condition-based maintenance includes proactive maintenance tasks to predict or prevent equipment failures. It is different from reliability-based maintenance which collects and analyzes data on the function and performance of specific equipment in order to determine the maintenance approach needed to keep the equipment functioning effectively and prevent future failures.



Obj. 1: Extent Study Addressed Specified Issues

All four subissues discussing the adequate visibility of the maintenance workload were addressed

- **Whether depot budget lines in current budget displays accurately reflect depot-level workloads—Addressed:** Discussed budget exhibits in the context of needed improvements in their clarity and usefulness for DOD officials and Congress, and recommended improvements to budget reporting.
- **Accuracy of core and 50/50¹¹ calculations—Addressed:** Highlighted concerns about core and 50/50 calculations, concluded that current core calculations are ineffective and destabilize future workload capability, and recommended steps to address these concerns.
- **Usefulness of current depot maintenance reporting requirements for oversight—Addressed:** Presented information on problems with reporting (e.g., reports do not relate to outcomes), concluded that senior DOD and service leaders and Congress do not get timely warning of eroding capability or workload, and recommended improving depot maintenance reporting.
- **Whether current budgetary guidelines provide financial flexibility during the execution year to permit military departments to make best-value decisions between maintenance activities—Addressed:** Discussed the ability of the services to realign funding for depot-level maintenance, and noted that the LMI study team was unable to document any instances in which the existing guidelines precluded a service from making best-value decisions.

¹¹Section 2466(a) of Title 10 of the United States Code states that subject to certain exceptions, not more than 50 percent of funds made available in a fiscal year to a military department or defense agency for depot-level maintenance and repair may be used to contract for the performance by nonfederal government personnel of such workload for the military department or agency.



Obj. 1: Extent Study Addressed Specified Issues

Six of seven subissues specified for final report were addressed, and one was partially addressed

- **Description of the depot maintenance environment—Addressed:** Described the current workload, workforce, and funding of the depots, and modeled anticipated future changes.
- **Recommendations on what would be required, in a post-reset environment to maintain an efficient and enduring DOD depot capability—Addressed:** Presented recommendations (such as improving core workload determinations, linking acquisitions and sustainment, and revising definitions) to improve the depots' viability.
- **Recommendations for changes to applicable law appropriate for a post-reset depot maintenance environment—Addressed:** Recommended revising the statutory definition of depot maintenance, including a comprehensive definition of depot-level software maintenance.
- **Recommendations on methodology for determining core logistics requirements—Addressed:** Recommended strengthening the core requirements determination process, improving how core is reported, and using best practices from the services to improve risk assessments.
- **Business rules to keep DOD depots efficient and cost effective—Addressed:** Recommended revising the core determination process to improve its utility as a business tool.
- **Strategy to produce performance-driven outcomes and meet materiel readiness goals at DOD depots—Partially addressed:** Recommended linking depot maintenance products to operational performance, but did not specifically address total ownership cost and repair cycle time as specified.¹²
- **Comments from Secretary of Defense and military department secretaries on the study's findings and recommendations—Addressed:** LMI provided a draft copy of the final report to DOD, but DOD's official letter, included in LMI's final report, did not specifically address the report's findings and recommendations.

¹²Total ownership cost includes the costs to develop, procure, operate, maintain, and dispose of a weapon system. Repair cycle time is the average number of days that is required to repair a weapon system or a major component.



Obj. 2: Design, Execution, and Presentation

Overview – Final report findings were generally supported by data and other information, but did not meet all the research standards

- We determined that the final report findings were generally supported as a result of our evaluation of the study's design, execution, and presentation.
 - For example, the study's scope was consistent with guidance, and assumptions were well identified. In addition, the study team verified and validated the study data, the report's conclusions were sound and complete, and the report provided realistic options.
- However, we found some areas of concern.¹³
 - Specifically, areas where we found concerns included not identifying data and model limitations in the report, a lack of documentation in the reports regarding modeling processes, unclear report organization, and insufficient support presented in the reports for some study conclusions, recommendations, and subrecommendations.
- To determine whether the findings in LMI's report were supported by the data and information examined, we evaluated how adequately the study met generally accepted research standards—on design, execution, and presentation—identified in our prior work.¹⁴

¹³For the current review, we evaluated whether the evidence for each relevant subquestion had limited or no concerns, the evidence had concerns, or we could not determine the extent of limitations or concerns. Concerns may raise questions about the adequacy or completeness of the study.

¹⁴Each of the three general standards has a number of subquestions (see GAO-06-938 and GAO-11-171R). However, not all of these are applicable to every study. For example, some elements apply to scenarios, threats, modeling, and assumptions and may be relevant to studies that make future projections or estimates. Similarly, some elements apply to the verification and validation of data and may be relevant to studies that rely on quantitative analyses as a basis for findings.



Obj. 2: Study Design

Study was generally well designed; and scope was consistent with guidance

- LMI's study team used the language in section 322 to develop the study's scope. They informed the Senate and House Committees on Armed Services about the scope and approach of the study early on, and provided periodic updates regarding the study's design.
- The study team did not develop a formal study plan, but our review of the interim report and internal documents revealed that they developed, followed, and updated a comprehensive study approach, including an initial scoping document. The study team explained and documented deviations from the study approach.
 - The approach included using site visits, collecting and analyzing depot maintenance and servicemember-deployment data and other information, and interviewing depot maintenance experts.
 - LMI's study team members told us that they clarified the major issue areas after meeting with stakeholders. LMI's study team briefed key stakeholders, including staff for the Senate and House Committees on Armed Services and the DOD Maintenance Executive Steering Committee, of updates to the study approach and preliminary observations.¹⁵
 - The study team originally planned to hold an industry forum and collect private-sector data to compare with DOD's data, but they did not do so because they decided to focus on organic depot maintenance. In part, this change in scope and approach was due to LMI's inability to obtain certain types of information that industry officials considered proprietary.

¹⁵The Maintenance Executive Steering Committee consists of senior maintenance and logistics representatives throughout DOD and is intended to serve as a mechanism for the coordinated review of DOD maintenance policies, systems, programs, and activities.



Obj. 2: Study Design

The study identified assumptions that generally contributed to an objective and balanced research effort

- The study identified assumptions about the future viability of organic depots and applied those assumptions consistently throughout the report. The final report's findings, conclusions, and recommendations were developed using these assumptions.
- The study team assumed that:
 - A drawdown of operations in Iraq and Afghanistan and dramatic force structure cuts would lead to significant reductions in future depot maintenance requirements, particularly for the Army and Marine Corps.
 - DOD would face reduced funding support for depot maintenance, decreasing the amount of work performed in the organic depots.
 - Army and Marine Corps organic depot maintenance funding would follow similar patterns because these services engaged in the same ground operations.
- The study team used publicly available information to identify reasonable assumptions that are used throughout LMI's two reports to support the analyses.¹⁶ The assumptions in the study generally contributed to an objective and balanced research effort.
- The clarity of the findings, conclusions, and recommendations might, however, have been improved by identifying limitations to the study's assumptions in the reports. For example, because of decisions made about the scope of the study, the study team limited its considerations of historical data to the period from fiscal years 2001 through 2009. As a result, the study team did not look at lessons learned and other information from DOD's downsizing actions, such as those in the 1990s.

¹⁶The LMI study team made these assumptions based on publicly available information such as the Sustainable Defense Task Force report, *Debts, Deficits, and Defense: A Way Forward* (June 11, 2010); and the Washington Headquarters Services, Directorate for Information Operations and Report document, *Active Duty Military Personnel Strengths by Regional Area and by Country* (Sept. 30, 2009).



Obj. 2: Study Execution

Methods were adequately executed and historical data were consistently used, but documentation was not readily available

- The study methods were adequately executed, and the historical data were consistently used.
 - As originally planned, LMI's study team visited at least one maintenance depot from each military service or depot type. In addition, they held meetings with a defense industry association and a private-sector facility conducting depot-level maintenance.
 - The information provided in the interim report showed some evidence that the study team analyzed DOD's life-cycle sustainment and maintenance strategies consistent with the study methods. However, LMI's internal documents lacked sufficient detail for us to assess actions the study team took to analyze these strategies.
 - The study's methods generally support accomplishing the objectives identified in the study's approach, but we could not determine whether the study's methods could produce the data and information necessary to address some of the objectives.
 - For example, one of the team's objectives was to examine the strategies to enable and monitor performance-driven outcomes in order to meet maintenance and readiness goals. The study team could not provide documents that clearly identified actions taken to acquire the necessary data and information for this objective.
 - The interim and final reports fully and completely identify the types of historical data presented and consistently used the historical data in the reports' analyses (e.g., data from fiscal years 2001 through 2009).
- However, some documentation of methods used in the study was not readily available for our review and assessment.
 - Some documentation was limited to data worksheets and references to previous reports.
 - For example, to gain an understanding of how the study approach was executed we reviewed numerous internal documents, presentations, and legislation, and conducted interviews with the study team, instead of reviewing a single document describing the study methods, which was not available.



Obj. 2: Study Execution

Data verification and validation were conducted, but report did not identify data limitations

- In accordance with International Organization for Standardization 9001 guidance,¹⁷ LMI maintains a quality management system that requires quality and technical reviews of the study.
 - The study team verified and validated study data and documented verification and validation processes.
 - Although not required by LMI's review process, the LMI study team documented its efforts to validate data obtained from the military services and solicit comments on the draft report. The study team did not incorporate all of the military services' comments.
 - The study's quality reviewer told us that he met frequently with study team members to discuss their approach and to review data and information the study team had gathered. He also provided verbal and written comments to drafts of the interim and final reports, including information on the team's verification and validation of data.
- The study's quality reviewer and the study director recorded the completion of the quality review for the final report on February 11, 2011, prior to report's issuance.
- We identified concerns regarding incomplete descriptions of data limitations and their impact.
 - For example, the study identified a limitation of Air Force and Navy aircraft and ship operating hours data for fiscal year 2009, noting that the data were incomplete at the time of the data submission. However, the study did not describe the impact of this limitation or the team's methods for addressing the limitation.
 - In an interview, the study team told us that the military services' data are sometimes not comparable, but the team did not identify this limitation, or its methods for addressing this limitation in the report. When asked about this concern, LMI attributed the missing information to an internal decision to focus on strategic issues.

¹⁷The International Organization for Standardization (ISO) is a nongovernmental organization that develops standards for use in the public and private sectors. ISO 9001 provides guidance on establishing a quality management system that provides confidence in an organization's ability to provide products that fulfill customer needs and expectations.



Obj. 2: Study Execution

Models were adequate for their intended purposes, but the study did not sufficiently explain the model limitations

- The study's models were adequate and reasonable for their intended purposes—to summarize simple predictive relationships among servicemember deployment levels, maintenance labor hours, and maintenance workforce.¹⁸
- The study team properly assembled and used the models' historical data to support the study's planned approach, but internal documents and the reports provide little information about the reliability of the input data.
 - The usefulness of these models is limited by assumptions about deployment scenarios—a limitation the study documentation did not mention.

¹⁸The study team could have improved the accuracy of its models by presenting a range of predictions (based on the observed prediction error). Larger samples and a wider range of variables also might have improved the accuracy of the models' predictions.



Obj. 2: Report Presentation

Study addressed the objectives, but the final report did not sufficiently explain model processes and organization was unclear

- The study addressed the objectives. We found the reports addressed 26 of the 33 subissues and partially addressed the other 7 subissues (as stated in objective 1).
- However, concerns exist regarding descriptions of model processes and the clarity of the report's organization.
 - The final report's description of the models does not provide sufficient detail for a reader to independently replicate the analysis.¹⁹
 - The report focuses on the models' results with little explanation or documentation of models' limitations or how different assumptions or the data may have affected results.
 - Members of the study team told us that they did not include detailed descriptions of the models to avoid confusing nontechnical readers. However, to avoid confusion, they might have alternatively presented the details of the models in an appendix or footnotes.
 - The final report includes an executive summary and topically organized chapters, but supporting evidence for the conclusions and recommendations is difficult to ascertain.
 - For example, chapters 4, 5, and 6 of the final report present conclusions and recommendations under separate headings, but chapters 2 and 3 present recommendations in the section titled "conclusions" but do not include a recommendations section.
 - In addition, some data in the interim report were assembled from different sources than the data used in the corresponding sections of the final report. The different numbers could confuse or mislead report readers. Study team members explained that they developed the interim report data from different sources because the study team had not yet received requested data from the military services.

¹⁹Providing sufficient detail in a report so that a reader may independently replicate the analysis is a common criterion for documenting statistical or scientific research.



Obj. 2: Report Presentation

Sound conclusions and realistic options provided; concerns with presented support for conclusions and recommendations exist

- The conclusions presented in the final report were sound and complete in that they covered all the findings and addressed the vulnerabilities to DOD depot maintenance that were discussed in the final report.²⁰
- The final report's discussion of the recommendations presented realistic options. We found that members of the DOD depot maintenance community considered all five recommendations to be feasible (as we will discuss in objective 3).
- As noted earlier, the study was generally well executed, but we have concerns about the presentation of the support for some of the conclusions, recommendations, and subrecommendations in the final report.
 - For example, the report presented findings showing that out of the four military services, the Air Force and Navy's depot workloads were stable and did not provide examples of how "nothing happened according to plan." Therefore, the conclusion that the depots' transitions from peacetime to wartime support during the last decade "consistently exhibited turbulence" may be overstated.
 - Also, the report does not establish a negative effect that warrants the subrecommendation to adopt a comprehensive definition of depot-level software maintenance.
 - In addition, Army, Navy, and Air Force officials told us that the final report did not present specific steps for implementation, or the benefits and unintended consequences, of the recommendations.

²⁰The final report presented two vulnerabilities that could affect the future viability of the organic depots: (1) a significant reduction in future depot maintenance requirements, and (2) reductions in near-term depot maintenance work and core sustaining depot maintenance workloads.



Obj. 3: Feasibility of Recommendations

Overview – The DOD depot maintenance community stated that LMI’s recommendations were feasible to implement

- The DOD depot maintenance community considered all five recommendations in the LMI report to be feasible to implement. The five general recommendations for changes to depot management practices were:
 1. Revise the statutory framework of depot maintenance
 2. Closely link acquisition and sustainment policies and outcomes with regard to depot maintenance
 3. Strengthen the core determination process
 4. Improve depot maintenance reporting
 5. Establish an independent commission or sponsor a series of facilitated forums to review five major alternatives for improving organic depot maintenance management and execution
- Even though members indicated that implementation is feasible during interviews with us, the DOD depot maintenance community stated that establishing an independent commission to review depot maintenance is unnecessary.
- DOD’s official response to the LMI study did not specifically address the findings and recommendations.
 - Section 322 specified that the study shall include comments provided by the Secretary of Defense and the secretaries of the military departments on the findings and recommendations of the study.
 - Officials within DOD stated that because the study was prepared by LMI and not the department, DOD did not provide more detailed official comments on the findings and recommendations contained in the study.
 - DOD and military department officials and staff, however, provided input and feedback on aspects of the study’s design, execution, and presentation.



Obj. 3: Feasibility of Recommendations

Lack of specific comments could limit Congress' and DOD's ability to improve depot-level maintenance

- Various officials within the DOD depot maintenance community provided us with examples of initiatives under way to address some of LMI's recommendations.
- LMI's study did not specifically address challenges or costs associated with implementing the recommendations.
- Because DOD did not provide specific comments on LMI's findings and recommendations, it is unclear as to strengths and weaknesses of LMI's recommendations, which recommendations DOD plans to implement, and what initiatives DOD has under way to improve depot maintenance.
- Without DOD's perspectives on LMI's recommendations, Congress may be limited in its ability to determine the actions needed to improve depot-level maintenance.



Obj. 3: Feasibility of Recommendations

Recommendation 1 – Revise the statutory framework of depot maintenance

- The study recommended revising the statutory framework of depot maintenance and also included three subrecommendations:
 - Remove exclusions (e.g., modifications designed to “improve performance”) from the statutory definition of depot maintenance.
 - Adopt a comprehensive definition of depot-level software maintenance.
 - Require better information (e.g., informing Congress prior to exiting Milestone B²¹ if a weapons system will not undergo depot maintenance) regarding weapons systems that do not undergo depot maintenance.
- According to members of the DOD depot maintenance community, revising the statutory definition of depot maintenance is feasible. Officials noted that the current definition is open to interpretation among the services and should be clarified.
- However, members of the community had mixed opinions regarding the feasibility of adopting the subrecommendation pertaining to a comprehensive definition of depot-level software maintenance.
 - Currently, officials noted that the services vary in terms of the types of software maintenance (e.g., rewriting code for a weapons system upgrade) that are performed at the depot level as well as their interpretation of what is considered to be software maintenance.
 - Air Force and Marine Corps officials told us that representatives from across the services are working with the Office of the Secretary of Defense to craft a revised DOD-wide definition of software maintenance.

²¹Milestone B marks the completion of the Technology Development phase and the beginning of the Engineering and Manufacturing Development phase of the acquisition process.



Obj. 3: Feasibility of Recommendations

Recommendation 2 – Link acquisitions and sustainment

- The study recommended changes to more closely link acquisition and sustainment policies and outcomes with regard to depot maintenance and also included two subrecommendations:
 - Designate completion of a strategic core logistics analysis as a specific exit criterion for Milestone A review.²²
 - Make decisions concerning the core requirements determination process and source of repair earlier in the acquisition process.²³
- The members of the DOD depot maintenance community generally agreed that linking acquisition and sustainment policies is feasible. Officials from some services also described related steps that their service has taken toward implementing the recommendation.
 - Air Force officials told us that they have already implemented these changes.
 - Navy officials told us that the Navy and the Marine Corps have a process in place to ensure that logistics and sustainment issues are considered early in the acquisition/engineering process.

²²In order to reach Milestone A, the point at which a program enters the technology development phase, among other things an analysis of alternatives is conducted and a technology development strategy is created. We have previously recommended that DOD require an initial core assessment early in the acquisition process. DOD concurred with our recommendation and stated that it would revise applicable guidance to provide more specificity on how to identify and establish core capability during the acquisition process. See GAO, *Depot Maintenance: Actions Needed to Identify and Establish Core Capability at Military Depots*, GAO-09-83 (Washington, D.C.: May 14, 2009).

²³We previously recommended that DOD improve core depot maintenance policies including revising depot maintenance core policy to include a forward look to incorporate future systems and equipment repair needs when developing core capability requirements and a direct link to the source-of-repair process. DOD implemented a revised core policy that addressed our recommendation. See GAO, *Defense Logistics: Actions Needed to Overcome Capability Gaps in the Public Depot System*, GAO-02-105 (Washington, D.C.: Oct. 12, 2001).



Obj. 3: Feasibility of Recommendations

Recommendation 2 – Link acquisitions and sustainment (cont.)

- With regard to one of the subrecommendations, members of the community generally agreed that core logistics analysis should be done earlier in the acquisition process, although opinions varied as to whether Milestone A was the appropriate stage for analysis. Examples of feedback from service officials follow:
 - Army and Navy officials stated that there is insufficient information available regarding systems design at Milestone A to complete a core logistics analysis.
 - Army officials told us that they believe it is more appropriate to conduct core logistics analysis at Milestone B because at that stage a program manager is assigned and a baseline for the weapon system has been established.



Obj. 3: Feasibility of Recommendations

Recommendation 3 – Strengthen the core determination process

- The study recommended strengthening the core determination process and also included three subrecommendations:
 - Structure a revised core determination process to be visible and readily understood.²⁴
 - Align core and 50/50 in a single statute.
 - Require all contracts that include sustainment as part of the statement of work to provide an annual estimate of the amount of funding expended on depot-level maintenance.
- According to members of the DOD depot maintenance community, strengthening the core determination process is feasible.
- However, some officials expressed reservations or mixed views about the feasibility of implementing two of the subrecommendations. For example:
 - Various service officials noted that aligning the core and 50/50 policies into a single statute would be challenging because core analysis measures workload in direct labor hours while the 50/50 report measures the balance of public- and private-sector funds made available for depot maintenance.
 - As to the feasibility of requiring all contracts to identify sustainment costs as part of the statement of work, Army officials stated this change may not be cost-effective. Specifically, the officials stated that this subrecommendation could make contract negotiations difficult because the Army still uses a lot of sole-source contracting. Marine Corps officials also told us that this recommendation would be more useful if contractors were required to report where the depot work was conducted.

²⁴We previously recommended that DOD improve its ability to assess core logistics capabilities with respect to fielded systems and correct any identified shortfalls. DOD concurred with our recommendations and planned to revise guidance on the core determination process. See GAO-09-83.



Obj. 3: Feasibility of Recommendations

Recommendation 4 – Improve depot maintenance reporting

- The study recommended revising depot maintenance reporting and also included four subrecommendations:
 - Provide a more complete accounting of all products and services being purchased from the depot provider – including procurement, modernization, and sustainment elements.
 - Make available a more complete presentation of the contributions (e.g., work done on major product lines influencing the materiel availability elements) of all providers of depot maintenance.
 - Catalog, verify, validate, and accredit requirements determination methods and presentation of risk for each of the major depot product lines being resourced.
 - Present depot requirements in an operational context, linking inputs to the ability to achieve the outputs by which the services meet combatant commander needs.
- According to members of the DOD depot maintenance community, improving depot maintenance reporting is feasible.
 - Army and Navy officials asserted that their respective services each have an effective depot maintenance reporting process, and the Navy stated that this DOD-wide recommendation applies more to the other services.
 - Marine Corps officials stated that they were in the process of creating a maintenance planning tool to catalog, verify, and validate their requirements.



Obj. 3: Feasibility of Recommendations

Recommendation 5 – Establish an independent commission

- The study recommended the establishment of an independent commission or sponsorship of a series of facilitated forums to review the following five major alternatives for improving organic depot maintenance management and execution:
 - Enhanced status quo (each service would continue to maintain its own depots, and a “corporate board” built on the existing Maintenance Executive Steering Committee would address issues such as workload imbalances and capacity underutilization).
 - Commodity executive agents (a single manager would be designated to be responsible for the management of specified commodities across the DOD enterprise).
 - Commercial management (contractors would assume responsibility for DOD’s depots).
 - Public corporation (Congress would establish an entity to oversee, operate, and staff DOD’s depots).
 - Defense agency or command (the current depot structure would be consolidated into a single agency or command).
- Most members of the DOD depot maintenance community told us that the recommendation is feasible, and some noted that prior depot maintenance studies contained comparable recommendations.²⁵

²⁵For prior studies identified by LMI, see Appendix B of LMI, Inc., *Future Capability of DOD Maintenance Depots*, LG901M2 (McLean, Va.: February 2011).



Obj. 3: Feasibility of Recommendations

Recommendation 5 – Establish an independent commission (cont.)

- However, members of the community stated that the recommendation should not be implemented.
 - Air Force officials stated that the issues related to depot maintenance are process driven, and were not related to the organization's structure. Army officials also told us that they do not see the benefit of establishing a consolidated agency or command focused on depot maintenance.
 - Army officials told us that DOD has the ability to facilitate a series of forums through the Maintenance Executive Steering Committee. They said that such forums would allow the services to share best practices and DOD to adopt the practices that were applicable across the services.
 - Marine Corps and Navy officials also told us that the issues highlighted in the LMI final report could be more appropriately addressed by existing DOD bodies, such as the Maintenance Executive Steering Committee.



Conclusions

-
- The LMI study provides a good basis for moving forward to enhance the capability and efficiency of DOD's depots and provide the future logistics capabilities and capacity necessary for national defense.
 - The wide range of topics covered in the study reflect key depot-level maintenance concerns, as outlined in legislation mandating the LMI study.
 - While LMI's reports did have some limitations with regard to information presentation, our review showed that the rigor of the study's design and execution typically adhered to generally accepted research standards.
 - Because DOD did not provide specific comments on LMI's findings and recommendations, it is difficult to ascertain which, if any, recommendations DOD plans to implement. By not providing these comments, DOD missed an opportunity to document its related ongoing and planned initiatives and to comment on the strengths and weaknesses of LMI's recommendations.
 - Without these important perspectives and added information, DOD and military service leaders and Congress may not be optimally positioned to decide which—if any—of LMI's recommendations to implement, determine timetables for implementation, and take other actions that could improve the future effectiveness and efficiency of DOD's depot-level maintenance.
-



Recommendation for Executive Action

-
- To enhance the capability and efficiency of DOD's depots and provide the future logistics capabilities and capacity necessary for national defense, we recommend that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology, and Logistics to provide a report to Congress—within 90 days of publication of our report—regarding DOD's and the military services' views on LMI's findings and recommendations. Among other things, the report should
 - describe DOD's views on LMI's recommendations,
 - specify any statutory and policy changes needed to implement the recommendations,
 - identify actions and timelines for accomplishing ongoing and planned actions to implement the recommendations, and
 - estimate the various costs and benefits associated with implementing the recommendations.



Agency Comments, Third-Party Views, and Our Evaluation

- In written comments on a draft of this report, DOD partially concurred with our recommendation. DOD stated that it is reviewing the findings and recommendations in the LMI study and believes that it is premature to provide the results of this effort until its analysis is complete. DOD added that a report to Congress on the Department's efforts is neither necessary nor required. As noted earlier, section 322 specified that LMI's final report was to include comments from DOD on the study's findings and recommendations, but DOD did not specifically address the findings and recommendations in its official response. Therefore, we continue to believe that such comments would provide important context to help Congress determine the appropriate course of action when considering LMI's recommendations.
- In written comments on a draft of this report, LMI concurred with our acknowledgment that the study covered a broad set of depot maintenance issues well, using a sound research approach that produced reasonable recommendations. LMI also commented on our finding that 7 of the 33 subissues specified in section 322 were partially addressed by its study. LMI noted that these 7 subissues were not covered in the study's reports to the same volume as the others, but stated that this was because the LMI study team determined that they were not critical elements of the study's findings and recommendations. LMI stated that these subissues were fully explored as part of the study. However, our criterion for evaluating whether LMI addressed all 33 subissues was the extent to which each of the subissues were covered in LMI's interim and final reports. Therefore, we believe our finding that LMI's reports did not fully address these 7 subissues as outlined in section 322 remains valid.



Related GAO Products

- *Depot Maintenance: Navy Has Revised Its Estimated Workforce Cost for Basing an Aircraft Carrier at Mayport, Florida.* GAO-11-257R. Washington, D.C.: March 3, 2011.
- *Depot Maintenance: Air Force Is Assessing Engine Maintenance Options for Work Currently Performed at Kelly Aviation Center.* GAO-11-274R. Washington, D.C.: February 11, 2011.
- *Depot Maintenance: Improved Strategic Planning Needed to Ensure That Navy Depots Can Meet Future Maintenance Requirements.* GAO-10-585. Washington, D.C.: June 11, 2010.
- *Depot Maintenance: Improved Strategic Planning Needed to Ensure That Air Force Depots Can Meet Future Maintenance Requirements.* GAO-10-526. Washington, D.C.: May 14, 2010.
- *Depot Maintenance: Improved Strategic Planning Needed to Ensure That Army and Marine Corps Depots Can Meet Future Maintenance Requirements.* GAO-09-865. Washington, D.C.: September 17, 2009.
- *Depot Maintenance: Actions Needed to Identify and Establish Core Capability at Military Depots.* GAO-09-83. Washington, D.C.: May 14, 2009.
- *Depot Maintenance: DOD's Report to Congress on Its Public-Private Partnerships at Its Centers of Industrial and Technical Excellence (CITEs) Is Not Complete and Additional Information Would Be Useful.* GAO-08-902R. Washington, D.C.: July 1, 2008.
- *Depot Maintenance: Issues and Options for Reporting on Military Depots.* GAO-08-761R. Washington, D.C.: May 15, 2008.

Comments from the Department of Defense



LOGISTICS AND
MATERIEL READINESS

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

JUN 17 2011

Mr. Jack E. Edwards
Director, Defense Capabilities and Management
U.S. Government Accountability Office
441 G Street, N.W.
Washington, DC 20548


Dear Mr. Edwards:

This is the Department of Defense (DoD) response to the GAO Draft Report, GAO-11-568R, "DEFENSE LOGISTICS: DoD Input Needed on Implementing Depot Maintenance Study Recommendations," dated May 16, 2011 (GAO Code 351555).

The Department partially concurs with the GAO recommendation and appreciates the opportunity to comment on the GAO Draft Report (enclosed).

My point of contact in this matter is Mr. Hal Amerau. He can be reached at (703) 697-1903.

Sincerely,


Alan F. Estevez
Principal Deputy

Enclosure:
As stated

**GAO DRAFT REPORT DATED MAY 16, 2011
GAO-11-568R (GAO CODE 351555)**

**“DEFENSE LOGISTICS: DOD INPUT NEEDED ON IMPLEMENTING DEPOT
MAINTENANCE STUDY RECOMMENDATIONS”**

**DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATIONS**

RECOMMENDATION 1: The GAO recommends that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to provide a report to Congress—within 90 days of publication of our report—regarding DoD’s and the military services’ views on LMI’s findings and recommendations. Among other things, the report should:

- Describe DoD’s views on LMI’s recommendations;
- Specify any statutory and policy changes needed to implement the recommendations;
- Identify actions and timelines for accomplishing ongoing and planned actions to implement the recommendations; and
- Estimate the various costs and benefits associated with implementing the recommendations (See page 35/GAO Draft Report.)

DOD RESPONSE: Partially concur. The Department is actively reviewing the LMI findings and recommendations detailed in its independent study of the capabilities and efficiencies of the maintenance depots of the Department of Defense (DoD). The LMI study raises a number of issues that could have significant financial, organizational, legislative, and readiness implications. The Department intends to take the results of the study into account as it moves forward in this complex and important area. The Department is carefully analyzing each of the recommendations to determine their impact on DoD capabilities and to determine the DoD’s way forward. It is premature to provide the results of the Department’s efforts until its analyses is completed. The Department does not concur that a report to Congress on the Department’s efforts is necessary or required.

Comments from LMI, Inc.



June 15, 2011

Dr. Jack E. Edwards
Director, Defense Capabilities and Management
Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Dr. Edwards:

This is LMI's response to the Government Accountability Office's draft report GAO 11-568R, *Defense Logistics: DoD Input Needed on Implementing Depot Maintenance Study Recommendations*. We appreciate the opportunity to comment on your review of our interim and final Duncan Hunter National Defense Authorization Act Section 322 reports on future DoD depot capabilities. Our reports were written to facilitate critical executive and legislative efforts to chart a fresh course toward more adaptive, responsive, and effective depot maintenance.

With regard to your review, we concur with your acknowledgment that the study covered a broad set of depot maintenance issues well, using a sound research approach that produced reasonable recommendations. GAO found that our reports address the 33 sub-issues specified in Section 322 and the study was generally consistent with research standards that define a sound and complete study with regard to design, execution, and presentation. GAO noted that, according to subject matter experts in the depot maintenance community, the implementation of all five recommendations presented in LMI's final report is feasible.

We would like to comment briefly on one point associated with your findings. According to GAO 11-568R, LMI's reports fully address 26 of the 33 required sub-issues and partially address the other 7 sub-issues. It is our view that, through the application of a variety of valid research techniques, we did, in fact, fully consider all 33 sub-issues during our study process. The sub-issues GAO identified as partially addressed are not covered in the reports to the same volume as the other issues because they were not critical elements of our findings and recommendations; but, be assured, they were fully explored as part of the study. We believe the content of our reports fully comports with the direction of the House and Senate Committees on Armed Services. The required content of the reports, particularly the final report, is clearly stipulated as seven areas (A–G) in subsection (e) of the legislation.

Our Section 322 study highlights critical factors that will shape the future of the defense depots. We believe the pragmatism of our recommendations will be proven as DoD moves to address fundamental changes necessary for the future management and execution of its depot maintenance programs. We are pleased to have produced the first comprehensive look at depot maintenance in a decade.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Bennett", with a stylized flourish at the end.

Jeffery P. Bennett
Senior Vice President, Logistics Management

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GAO Contact and Staff Acknowledgments

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Staff Acknowledgments

In addition to the contact named above, Kimberly Seay, Assistant Director; Richard Hung; Foster Kerrison; Ron La Due Lake; Jaclyn Nelson; Jeff Tessin; Erik Wilkins-McKee; Michael Willems; and Delia Zee made key contributions to this report.

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